

CLAIMS

1. A compressor comprising a compressing mechanism for compressing a fluid that contains lubricating oil, and a separation chamber that is revolved by having introduced therein the fluid compressed by the compressing mechanism
5 and in which at least part of the lubricating oil contained in the fluid is separated by the centrifugal force produced by this revolution, wherein only the introduced fluid is present in the separation chamber.

2. The compressor of claim 1, wherein the separation chamber has a columnar space for revolving the introduced fluid, and a feed hole for introducing the fluid
10 compressed by the compressing mechanism into the separation chamber, and the ratio (L/R) of shortest distance L from the central axis of the columnar space to the projection line of the opening of the feed hole projected parallel to the central axis of the feed hole and the distance R from the central axis of the columnar space to the inner peripheral wall of the columnar space is more than a specified value.

15 3. The compressor of claim 2, wherein the specified value is an intersection of a curve expressed as function of the ratio (L/R) in the case of having separation pipes and the oil circulation rate, and a curve of the ratio (L/R) without separation pipes and oil circulation rate.

4. The compressor of claim 1, wherein the separation chamber has a columnar
20 space for revolving the introduced fluid and a gas exhaust hole for exhausting the introduced fluid, and the opening at the separation chamber side of the gas exhaust hole is coupled to the outer circumference at one end of the columnar space through a reducing portion.

5. The compressor of claim 1, further comprising a feed hole for introducing
25 the fluid compressed by the compressing mechanism into the separation chamber,

wherein the separation chamber has an opening of gas exhaust hole for exhausting the introduced fluid, and the fluid introduced into the separation chamber from the feed hole is introduced into the separation chamber in a direction departing from the opening of the discharge hole.

5 6. The compressor of claim 1, further comprising a discharge port for discharging the compressed fluid from the compressing mechanism, a feed hole for introducing the fluid discharged from the discharge port into the separation chamber, and a guide passage for guiding the fluid from the discharge port into the feed hole, wherein the guide passage has a slender passage formed by communicating with the
10 feed hole.

7. The compressor of claim 1, further comprising an oil-storage chamber for storing the lubricating oil separated from the fluid in the separation chamber, and a communication passage provided between the upper part of the oil-storage chamber and the separation chamber, wherein the opening at the separation chamber side of
15 the communication passage has an opening in a direction so that the fluid flowing into the separation chamber from the upper part of the oil-storage chamber may not disturb revolution of the fluid in the separation chamber.